

5.1 Writing Equations in Slope-Intercept Form

Slope-Intercept form

$$y = 2x + 1$$

m =

b =

1. slope = 4
y-intercept = -3

Equation:

2. slope = -3
y-intercept = 7

Equation:

3. slope = 0
y-intercept = 5

Equation:

out graph paper

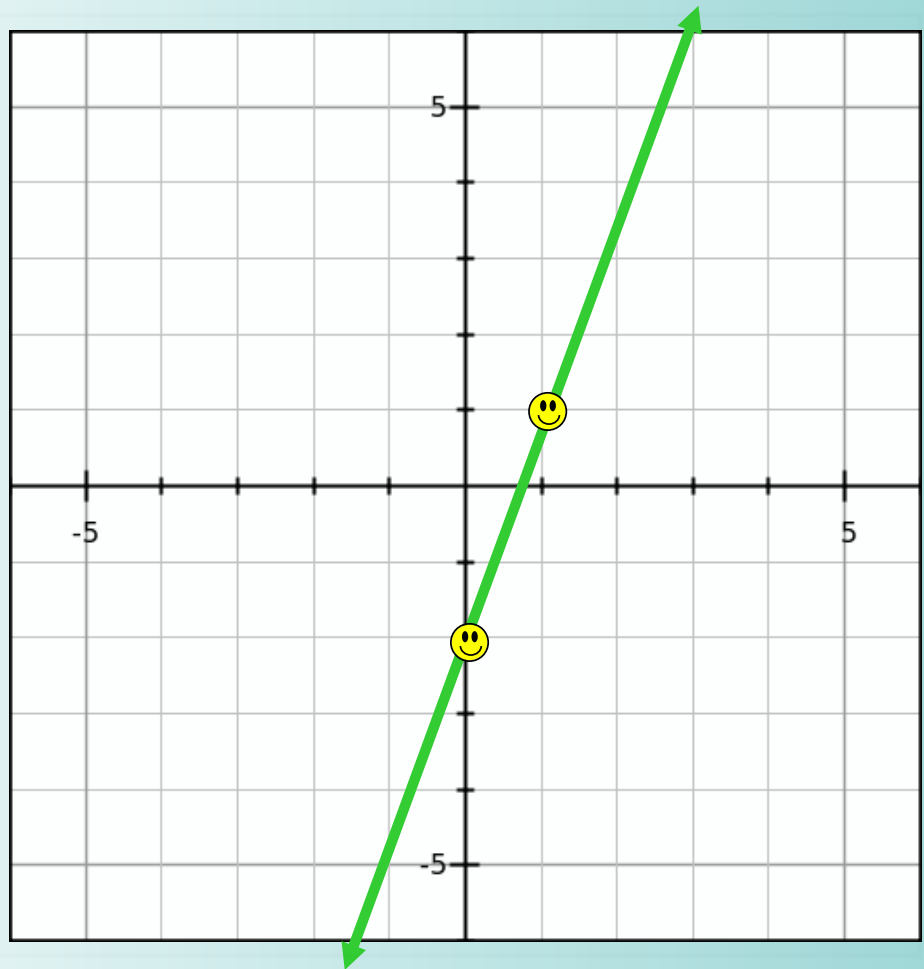
1. (0,-2) (1,1)

$$m = \frac{3}{1}$$

$$b = -2$$

Equation:

$$y = 3x - 2$$



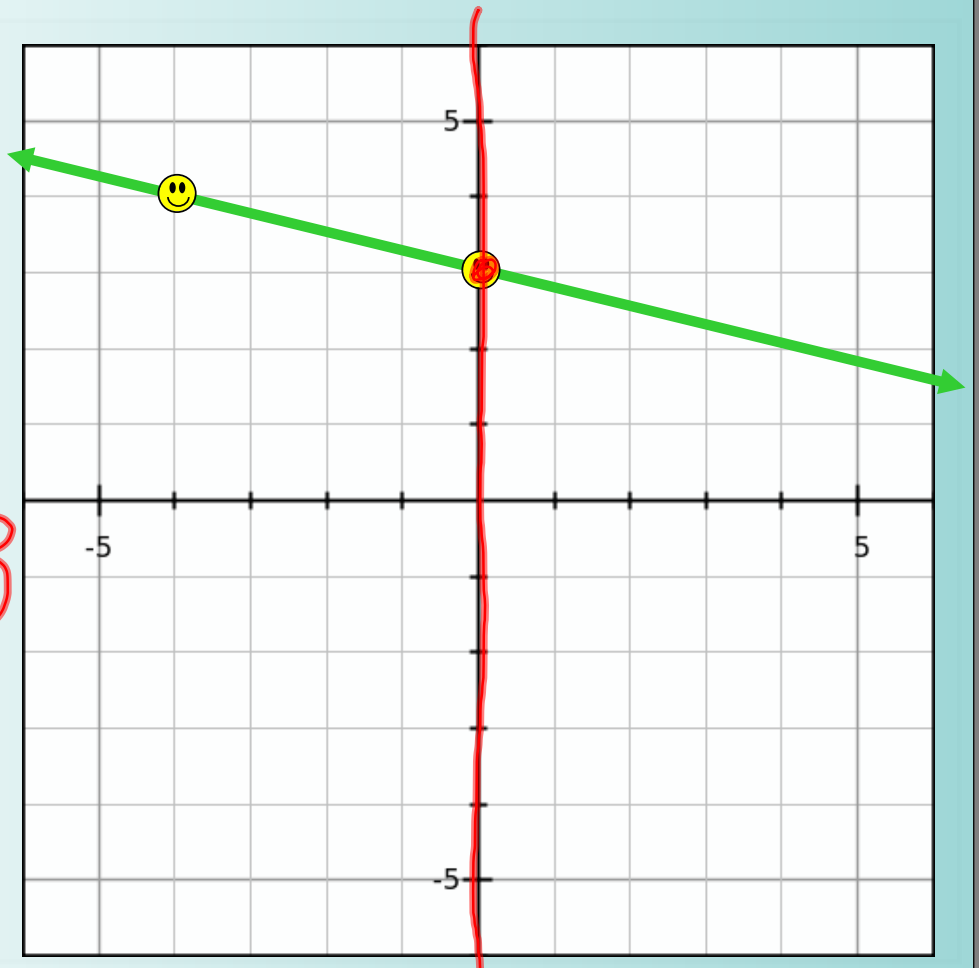
2. $(-4, 4)$ $(0, 3)$

$$m = -\frac{1}{4}$$

$$b = 3$$

Equation:

$$y = -\frac{1}{4}x + 3$$

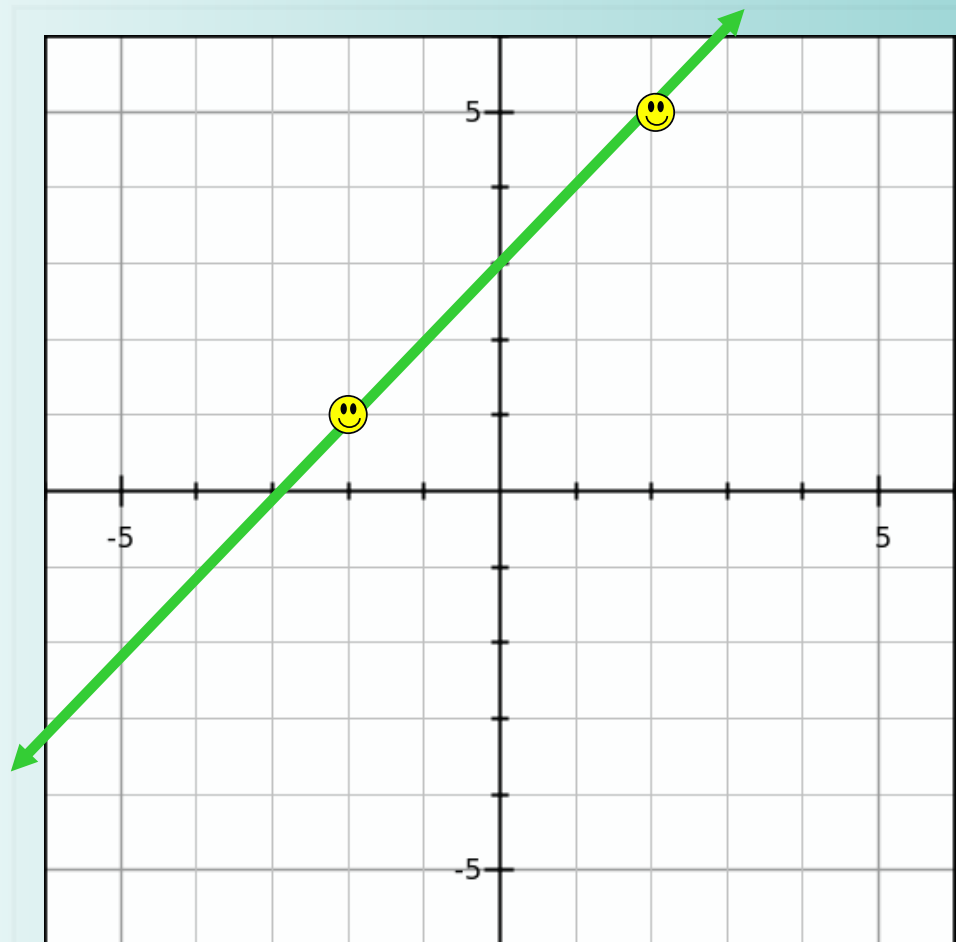


3. (2,5) (-2, 1)

m =

b =

Equation:



4. $(-3, 2)$ $(1, 2)$

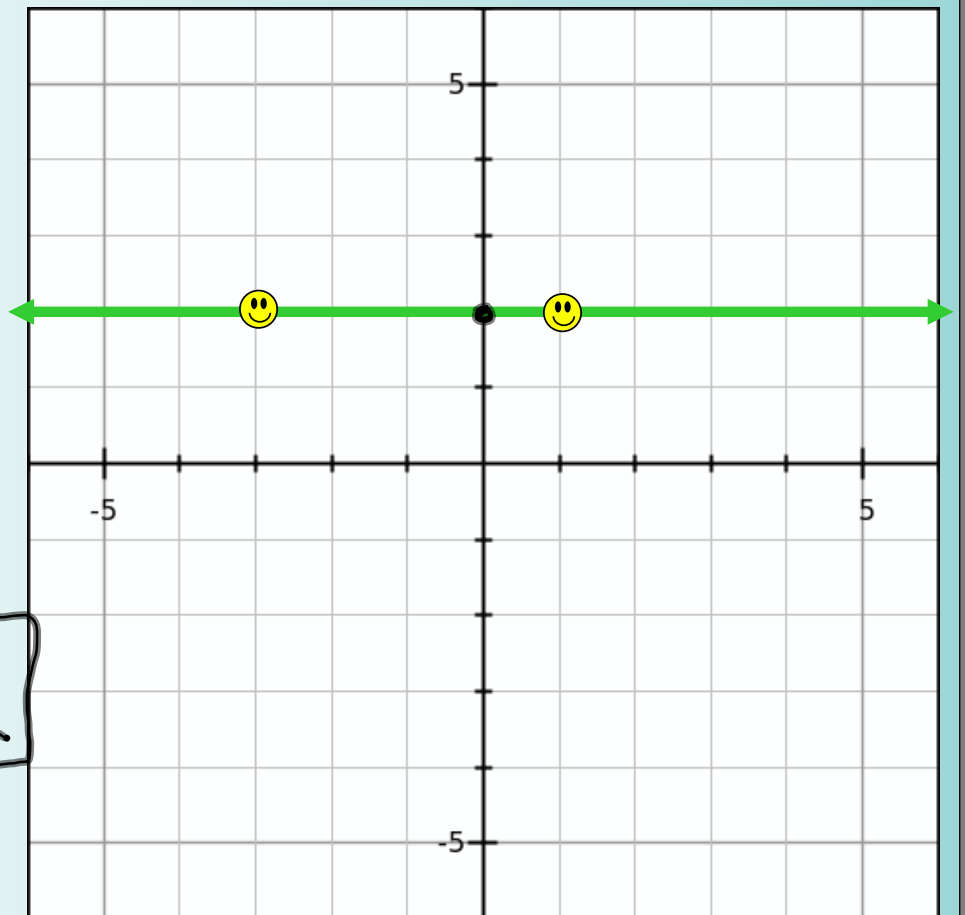
$$m = \frac{0}{4} = 0$$

$$b = 2$$

Equation:

$$y = 2$$

$$y = 0x + 2$$



5. (5, 6) (5, -4)

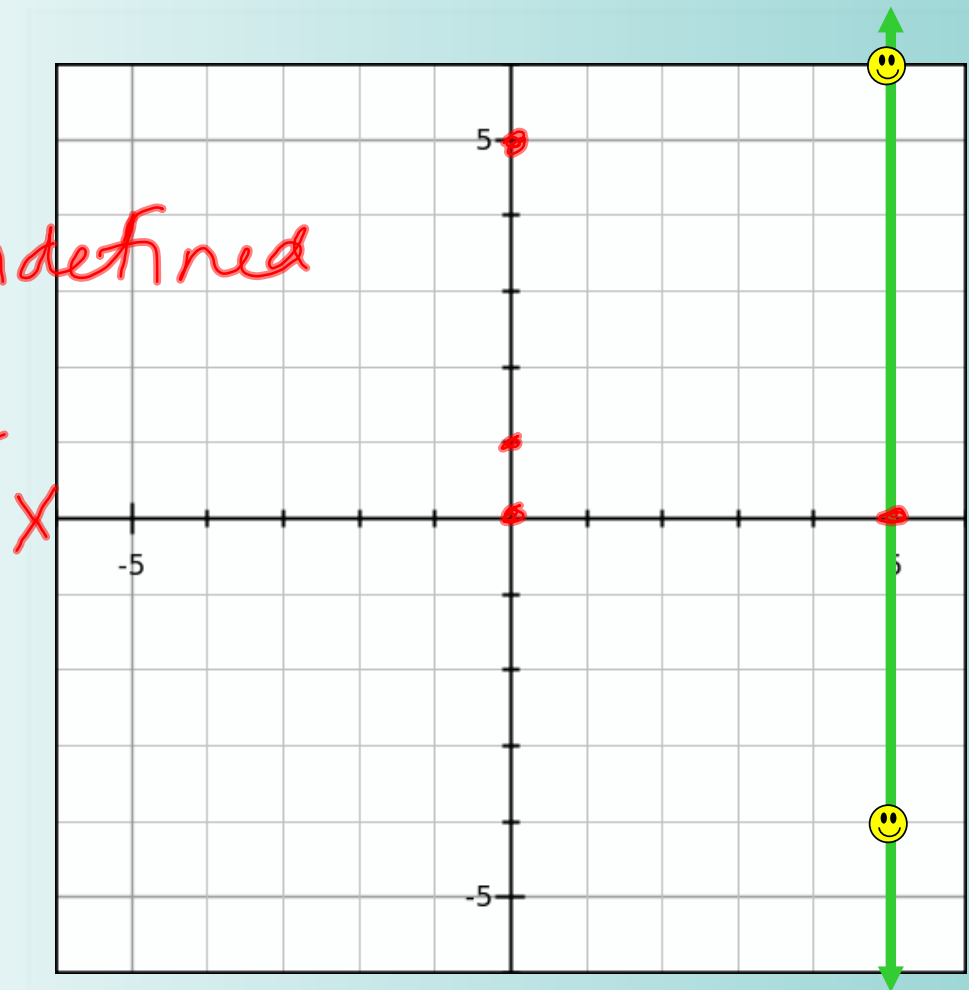
$$m = \frac{10}{0} = \text{undefined}$$

b = NONE

Equation:

$$X = 5$$

X



Real Life Situations

1. A car rental is \$50 plus 15 cents per mile $P = \text{price}$

$$P = 50 + .15m$$

$m = \text{\# of miles}$

2. Your uncle weighs 260 lbs and is losing 2 lbs each month

$$U = 260 - 2m$$

$U = \text{weight}$

3. A video store charges an \$8 membership fee and \$4.50 per video.

$$C = 8 + 4.50m$$

$C = \text{cost}$
 $m = \text{\# of movies}$

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